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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,594	09/30/2005	Patrice Jannic	58650US007	5638

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EXAMINER	
FERGUSON, LAWRENCE D	
ART UNIT	PAPER NUMBER
1794	
NOTIFICATION DATE	DELIVERY MODE
06/02/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/551,594	JANNIC, PATRICE	
	Examiner	Art Unit	
	LAWRENCE D. FERGUSON	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/6/07;2/21/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Objection of Abstract

1. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. The abstract of the disclosure is objected to because it is not on a separate sheet. Correction is required. See MPEP 608.01(b).

Information Disclosure Statement

2. The references disclosed within the information disclosure statement (IDS) filed on February 21, 2006, and June 6, 2007, have been considered and initialed by the Examiner except for the copy of Lyons et al., "Electrically Conductive Adhesives" because it is not dated.

Claim Rejections – 35 USC 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 14-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 14, the phrase, "an effective amount of one or more crosslinking agents" is indefinite. It is unclear what makes the crosslinking agent effective and how it effects the novolac phenolic resins. It is also unclear how much crosslinking agent is needed, in order for it to be effective.

In claim 20, the phrase, "optionally provided in an amount of less than about 0.25 wt.%" does not further limit the claimed invention.

In claim 21, the phrase, "optionally provided in an amount of less than about 0.25 wt.%" does not further limit the claimed invention.

In claim 22, the phrase, "optionally provided in an amount of less than about 0.20 wt.%" does not further limit the claimed invention.

In claim 24, the phrase, "optionally having a thickness of about 30 to 200μm" does not further limit the claimed invention.

In claim 25, the phrase, "optionally capable of being functionally maintained for at least about 200 Flexural Cycles" does not further limit the claimed invention.

Claim Rejections – 35 USC § 102(b)

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 14-19 and 21-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Ozawa et al. (U.S. 5,385,979).

Ozawa discloses an adhesive composition (column 1, lines 7-12 and column 2, lines 1-5) comprising a heat-reactive phenolic resin, prepared as a novolac phenolic resin (column 3, lines 53-57 and column 4, lines 37-41) and an elastomer, such as natural rubber, synthetic rubber or acrylonitrile-butadiene copolymer (column 5, lines 54-65 and column 7, lines 25-33), as in claims 16-17. The elastomer is typically used in an amount ranging from 1 to 99% by weight of the adhesive composition (column 6, lines 12-16) and the phenolic resin is typically used in an amount ranging from 20 to 70% by weight of the adhesive composition. Ozawa further discloses a crosslinking agent is used in an amount ranging from about 1 to 95 of the novolac phenolic resin (column 5, lines 35-38) and is used to fully crosslink the novolac phenolic resin (column 4, lines 41-44). Concerning the ratio of the mass of one or more novolac phenolic resin over the mass of one or more elastomers, the average of the 20-70% weight of the novolac phenolic resin is 45% and the average of the 1-99% weight of the elastomer is 50%, rendering 45% novolac phenolic resin over 50% elastomer is 0.75, as in claim 15.

In claim 14, the phrase, "heat-activatable adhesive has upon curing a glass transition temperature of less than about 60°C", constitutes a 'capable of" limitation and that such a recitation that an element is 'capable of' performing a function is not a positive limitation but only requires the ability to so perform. The phrase, "upon curing"

is interpreted as the adhesive not being cured, but being capable of being cured, where the adhesive composition of Ozawa appears to be capable of being cured. However, if the adhesive is cured, because the adhesive composition of Ozawa has the same materials (elastomer, novolac phenolic resin and crosslinking agent) with the same function, the glass transition temperature, upon curing, is an inherent feature of the adhesive composition. The claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). Mere recitation of newly-discovered function or property, inherently possessed by things in prior art, does not cause claim drawn to those things to distinguish over prior art.

Concerning claim 18, the phrase, "less than 1 wt.%" is construed as 0, therefore, because Ozawa is silent of free phenol content, the reference has 0 wt.% of free phenol content.

Concerning claim 19, the reference discloses crosslinking agents of the adhesive composition include hexamethylenetetramine (column 4, lines 44-51).

Concerning claim 21, the phrase, "capable of effecting a crosslinking reaction between the one or more elastomers and the one or more novolac phenolic resins" constitutes a 'capable of' limitation and that such a recitation that an element is 'capable of' performing a function is not a positive limitation but only requires the ability to so perform. The crosslinking agent of Ozawa appears to be capable of effecting a crosslinking reaction between the one or more elastomers and the one or more novolac

phenolic resins." In claim 21, the phrase, "optionally provided in an amount of less than about 0.25 wt.%" does not further limit the instant claimed invention.

Concerning claim 22, the phrase, "non-curable thermoplastic resins" constitutes a 'capable of" limitation and that such a recitation that an element is 'capable of' performing a function is not a positive limitation but only requires the ability to so perform. In claim 22, the phrase, "optionally provided in an amount of less than 20wt.%" does not further limit the instant claimed invention.

Concerning claim 23, the adhesive composition can contain any known metal oxides such as oxides of zinc and lead, which are construed as being electrically conductive particles.

Concerning claim 24, the phrase, "optionally having a thickness of about 30 to 200um" does not further limit the instant claimed invention.

Concerning claim 25, the adhesive composition of Ozawa is useful for bonding various materials (column 1, lines 8-13). In claim 25, the phrase, "optionally capable of being functionally maintained for at least about 200 Flexural Cycles" does not further limit the instant claimed invention.

Claim Rejections – 35 USC § 103(a)

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa et al. (U.S. 5,385,979) in view of Fleming et al (U.S. 2,839,443).

Ozawa is relied upon for instant claim 14, as above. Ozawa does not explicitly disclose the adhesive composition having a vulcanization agent. Because Ozawa does not specifically teach the a vulcanization agent, such as sulfur, one of ordinary skill in the art would look to the prior art, such as Fleming, to teach a vulcanization agent for use within the disclosed adhesive composition. Fleming teaches an adhesive composition comprising novolac phenolic resin and synthetic rubber, which is vulcanized with a vulcanization agent, such as sulfur (column 1, lines 53-56 and column 3, lines 12-35 and 50-75). It would have been obvious to one of ordinary skill in the art to have included a vulcanization agent, as taught in Fleming, in the adhesive composition of Ozawa to improve the heat activatibility of the adhesive without the use of additional materials (column 1, lines 53-65 and column 3, lines 14-57).

Claim Rejections – 35 USC § 103(a)

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa et al. (U.S. 5,385,979) in view of Kropp et al (U.S. 6,500,891).

Ozawa is relied upon for instant claim 14, as above. Ozawa does not explicitly disclose the assembly has an electronic element. Although Ozawa discloses the adhesive composition is useful for bonding various materials (column 1, lines 8-13) the reference does not specifically teach the adhesive composition is useful for bonding an

electronic element. One of ordinary skill in the art would look to the prior art, such as Kropp, to teach bonding an electronic element. Kropp teaches an adhesive composition comprising novolac phenolic resin, which is used to bond an electronic part of a circuit board to a chip (column 11, lines 4-10 and column 12, lines 1-7). It would have been obvious to one of ordinary skill in the art to have substituted the adhesive composition of Ozawa for the adhesive composition of Kropp in order to bond the electronic parts of Kropp, as Kropp teaches adhesive compositions can be used to bond electronic parts and Ozawa teaches the adhesive composition can bond various materials (column 1, lines 8-13) which include electronic parts.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks, can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Patent Examiner
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